Attorney Docket No.: 2003P12854US U.S. Application No. 10/645,781 Page 2 of 5

## Amendments to the Specification:

Please insert new paragraphs [0022.1] as follows:

[0022.1] Fig. 3b depicts an end view of a magneto-hydraulic compensator guide in accordance with a preferred embodiment of the present invention.

Please amend paragraph [0023] as follows:

[0023] Fig. [[3b]] <u>3c</u> depicts a sectional view of a magneto-hydraulic compensator guide in accordance with a preferred embodiment of the present invention.

Please amend paragraph [0037] as follows:

[0037] In a presently preferred embodiment, the magnetostrictive fuel injector 100 further includes a magneto-hydraulic compensator assembly 130 (depicted in [[Fig.]] Figs. 1-4). In particular, the compensator 130 includes a sleeve 132 extending between a first end 132a and a second end 132b along the longitudinal axis. One of the first and second ends of the sleeve 132 has an opening (132b) and the other of the first and second end (132a) terminates in a blind bore, i.e. an upside down cup-shaped sleeve (Figs. 2a-2c). Partly disposed in the sleeve 132 is a plunger 122 extending between a first plunger end 122a and a second plunger end 122b along the longitudinal axis (Fig. 3a). The sleeve 132 (Fig. 1) surrounds the first plunger end and an intermediate portion 122c. The plunger is spaced apart with a portion of the plunger by a clearance gap "G" (Fig. 4) so as to provide for a clearance fit between these two components. Preferably, the plunger 122 can include a hollowed out section formed on the first end 122a of the plunger 122 which extends into the plunger 122 for a predetermined distance so as to form an interior volume. A seal 138 can be located between the sleeve and the plunger so as to define a first volume 10 between sleeve 132 and the plunger 122, which volume can also include the clearance gap "G" and a portion near the first end 132a. A plunger guide 134 (Figs. 3b-3c), with a fluid passage 134c extending between a first guide end 134a and a second guide end 134b, is

Attorney Docket No.: 2003P12854US U.S. Application No. 10/645,781 Page 3 of 5

partly disposed in the hollowed out section of the plunger 122 to define a second volume 20. It should be noted that the clearance G between the plunger 122 and sleeve 132 may be adjusted so as to provide for a predetermined flow of magnetically-active fluid 136 between the first volume 10 and the second volume 20, depending on the properties of the type(s) of magnetically-active hydraulic fluid used. The guide 134 may be provided to maintain alignment of the plunger 122 within the sleeve 132 and to provide a seat for the second biasing member 120. Preferably, the seal 138 is a barrier type seal that is operative to prevent magnetically-active fluid 136 from leaking out of the compensator assembly 130 in any appreciable amount. Also preferably, the seal 138 should include relatively long glands area to allow movements of the seal 138 as the magnetically-active fluid 136 changes volume in the compensator assembly 130 due to thermal or other distortions. It should be noted, however, other types of barrier seal, for example, a labyrinth seal, or a plurality of o-ring seals can be used.